

DETAILED ACTION

Claim Status

1. This action is in response to the applicants' amendment filed on June 14, 2011. Claims 25, 31, 33, 39 and 41 have been amended; claims 25-48 are pending and examined below.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 25, 31, 33, 39 and 41 and their dependent claims (therefore, all claims) are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. As amended, these claims recite "the data or programs are selected by the robot apparatus to comply with at least an emotional state of a user associated with the service request." The specification does not provide support for this limitation.

Page 28 of the specification provides:

The "information pertinent to service requests" includes the contents of the interactions with the user 1, indices for the emotion, such as instinct or feeling, of the robot apparatus 2 at the time, the temperature or the humidity of the casing as detected, light volume, the sunshine volume, duration of the bright sunshine, and other indices of external stimuli.

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Therefore, the specification describes the use of indices for the emotion of the robot apparatus, not compliance with an emotional state of a user associated with a service request.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 25, 31, 33, 39 and 41 and their dependent claims (therefore, all claims) are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. The term " an emotional state of a user associated with the service request " in these claims renders the claim indefinite because an emotional state corresponds to a highly subjective and often undetectable belief or feeling that a person may temporarily experience in his own mind. The specification does not provide a standard for ascertaining the scope of the limitation, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 25-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vaughan (US 2003/0192040) in view of Kasuga (US 6,577,924), in further view of Sano (US 2003/0191389) and in further view of Abbott (US 2002/0052963).

9. **Regarding claims 25 and 41**, Vaughn discloses an information providing apparatus for supplying data to electronic target device over a network. While Vaughn does not explicitly state that the target device is a robot apparatus, Vaughn teaches that the target device may be an electronic device that utilizes software stored on a memory media and implemented by a processing device. Kasuga discloses a robot that includes a [processing device/controller 10] (Fig. 13), utilizes software (see section (4-2) Software Configuration of the Control Program beginning on col. 12, line 39) stored on a memory 10A (Fig. 13), and is connectable to a server (Fig. 3) which supplies motion data, or an application program to the robot apparatus (col. 8, lines 15-63; the server 38 prepares a character corrective vaccine including parameter data or software program, which determines the behavior/motion of the robot). Kasuga teaches that these features allow the system to send information from a server to the robot/user via a telecommunication line (Abstract). It would have been obvious for one of ordinary skill in the art at the time of the invention to use the computerized robot of Kasuga as the target device of the system disclosed by Vaughn in order to send information from a server to the robot/user via a telecommunication line.

Vaughn further discloses:

a content storage unit for storing at least one of data to be supplied to the [robot apparatus/target device] and programs to be supplied to the [robot apparatus/target device] (Fig. 2, software storage component 240);

a first receiver for receiving an inquiry comprising a service request, and information of the [robot apparatus/target device] from the [robot apparatus/target device] (Fig. 2, response component 230; see [0027], target device communicates with response component 230 via signals 2 and 3);

a preparer for preparing a list of data or programs based on services requested in the service request and the information of the [robot apparatus/target device] and for returning the list to the [robot apparatus/target device] (see [0022] the system selects compatible software returns a recommendation);

a second receiver for receiving a selection of data or programs from the list from the [robot apparatus/target device] (Fig. 2, software storage component 240; see [0028], target device communicates with software storage component 240 via signals 4 and 5) wherein the data or programs are implicitly selected by the robot apparatus to comply with a requested service in the service request ([0027], software request generation component 280 confirms the selected software is compatible with target device 210 and forwards the information on to software loading component 290);

and a transmitter (Fig. 2, software storage component 240) for transmitting data or programs selected to comply with a requested service in the service request

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to the [robot apparatus/target device] (see [0028], software loading component 290 engages in a communication protocol (e.g., ftp, http, etc.) in which software corresponding to the software inquiry is retrieved).

Vaughn implicitly discloses that the selected data or software is selected by the [robot apparatus/target device] as described above, and in addition, Sano discloses a method of providing function to a mobile target device (Fig. 8, diagnostic device 52) over a network (Fig. 8, ASP 23), where the network sends available functions/programs to the target device. Sano explicitly discloses that the target device itself selects the appropriate program to be transmitted (see [0051] “program files, the setting information, and the protocols, to be used can be determined on the ultrasonic diagnostic device based on the disease or environment information, and the determined program files, setting information and protocols may be read from the ASP 23” (emphasis added)). Sano teaches that this capability allows the user to use the device smoothly without any trouble in selection of the necessary programs (see [0051]); in other words, the device may be made more user-friendly. It would have been obvious for one of ordinary skill in the art at the time of the invention to use these features of Sano with the system of Vaughn in order to make the device more user-friendly.

Regarding the newly added limitations, Vaughn in view of Kasuga and Sano does not disclose that the data or programs are selected by the robot apparatus to comply with at least an emotional state of a user associated with the service

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request, however Abbott discloses a system which may attempt to predict a user's emotional state according to a model in order to use information relevant to a user's current environment (see [0053]-[0054]). It would have been obvious for one of ordinary skill in the art at the time of the invention to use these features of Abbott with the system of Vaughn in view of Kasuga and Sano in order to use information relevant to a user's current environment.

10. **Regarding claims 26, 34 and 42**, Vaughn teaches that communications may be transmitted using extensible markup language (XML) (see [0023]), as well as “ftp, http, etc.,” (see [0036]). It was notoriously well known in the art at the time of the invention that SOAP combines well known standards, namely, XML and HTTP. This is admitted in Applicants' specification on page 5, (which states, “The SOAP (Simple Object Access Protocol) is a protocol for invoking data or services on other systems, formed on the basis of the XML (rendered Markup Language) or HTTP (Hyper Text Transfer Protocol)”). It would have been obvious for one of ordinary skill in the art at the time of the invention to utilize SOAP as the communication protocol in the system disclosed by Vaughn, because Vaughn teaches the use of existing and publicly available standards including HTTP/XML, and SOAP was known at the time of the invention to be one such standard.

11. **Regarding claims 27 and 43**, Vaughn further discloses supervising supplementary information pertinent to the data or programs stored in the content

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storage unit (see [0032], a [device profile/supplementary information] is forwarded for utilization in the software selection process);

and a matching unit for matching the inquiry and the supplementary information (information received in response to the software inquiry is parsed by software loading component 290 and the location of "matching" software is extracted).

Vaughn does not explicitly state that the supplementary information is stored in database, however Sano discloses that the ASP 23 stores supplementary information pertinent to the data or programs stored in the content storage unit (see [0051], and that the [setting information and protocols/supplementary information], to be used may be read from the ASP 23 (the network server). It would have been obvious for one of ordinary skill in the art at the time of the invention to use these features of Sano with the system of Vaughn in order to make the device more user-friendly.

12. **Regarding claims 28, 36 and 44**, Vaughn further discloses a returning unit for returning, in response to the selection from the list, an access method for accessing the selected data or programs to the [robot apparatus/target device] (see [0028], software loading component 290 engages in a communication protocol (e.g., ftp, http, etc.) in which software corresponding to the software inquiry is retrieved) and that the transmitter transmits the selected data or programs, in response to an

access request, corresponding to the accessing method, from the [robot apparatus/target device] (Figs. 3 and 4).

13. **Regarding claims 29, 37, and 45**, Vaughn further discloses that the supplementary information comprises information pertinent to services and the information pertinent to information of the [robot apparatus/target device] (see [0026], target profile production component 270 produces a profile of a target system summarizing component characteristics and forwards the profile information to software request component 280).

14. **Regarding claims 30, 38 and 46**, Vaughn further discloses information including at least one of:

- an ID of the [robot apparatus/target device], wherein the ID is unique to the [robot apparatus/target device] (see [0030], a device identifies itself in one embodiment by providing its device identification (ID) to the network);

- a robot sort ID, wherein the sort ID is unique to a type of the [robot apparatus/target device] (*Id.*);

- a list of functions of the [robot apparatus/target device] (see [0026], the profile includes information indicating components included in target device 210 (e.g., hardware, software and operating systems included in the target system);

- information indicating hardware architecture of the [robot apparatus/target device] (*Id.*); and

- a database list owned by the [robot apparatus/target device] (*Id.*).

15. **Regarding claims 31 and 47**, these claims essentially recites all of the features of dependent claims 32 and 48 in independent form by incorporating the features recited in independent claims 25 and 41. Therefore, please see the explanation provided herein regarding those claims.

16. **Regarding claims 32 and 48**, Vaughn further discloses that the information of the [robot apparatus/target device] includes a list of functions of the [robot apparatus/target device] (see [0026], the profile includes information indicating components included in target device 210 (e.g., hardware, software and operating systems included in the target system). Vaughn does not explicitly discuss the following features of this claim, however Kasuga further discloses that the [information providing apparatus/server] includes:

an object storage unit for storage of functional objects utilized by the [robot apparatus/target device] (col. 8, lines 34-52, the server 38 collects, from the robot, internal-state information including the states of emotion and instinct objects);

a specifying unit for specifying needed functions for the [robot apparatus/target device] to render the services requested (col. 8, lines 34-52, the server 38 generates or prepares information to correct the robot to the user's desires);

a comparing unit for comparing the needed functions to the list of functions to determine functions in deficit in the [robot apparatus/target device] among the needed functions (col. 8, lines 34-52, the difference between a character the user

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200 desires and a current character of his robot is compared and the difference is determined); and

a retriever for retrieving one or more objects of functional objects corresponding to the functions in deficit, from the object storage unit, wherein the transmitter transmits the objects, along with the selected data or programs, to the [robot apparatus/target device] (col. 8, lines 54-56, the server 38 sends the character corrective vaccine to the robot, where the vaccine includes parameter data or software programs, as stated in col. 8, lines 22-27).

It would have been obvious for one of ordinary skill in the art at the time of the invention to use these features disclosed by Kasuga with the system disclosed by Vaughn, in order to send information from a server to the [robot apparatus/target device] user via a telecommunication line.

17. **Regarding claim 33**, this claim recites a method including a preamble and five elements that mirror the functional language (language following the word “for”) recited in the preamble and the five elements listed in claim 25. Therefore, please see the above explanation regarding claim 25.

In addition, claim 33 recites that the inquiry comprising a service request is prepared via interaction between the robot apparatus and a user. Vaughn further discloses that its system is flexible and “provisions are also made to include indications of user desired objectives (e.g., special functionality) in the [inquiry/request],” by providing the user with convenient suggestion prompts and

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easily understood explanations (see [0015]). Therefore, the system of Vaughn may be implemented such that the [inquiry/request] is prepared via interaction between the [robot apparatus/target device] and a user.

18. **Regarding claim 35**, please see the above explanation regarding claim 27 and note that Vaughn further discloses that the formulating of the list of the data or programs is based on the matching of the inquiry and the supplementary information (see [0015], an automated analysis of the target device discovers what components are included in the target system and based upon the results of the [analysis/supplementary information], an [inquiry/request] for software that is compatible with the target device is developed, which includes indications of desired software parameters and attributes).

19. **Regarding claim 39**, this claim essentially recites all of the features of dependent claim 40 in independent form by incorporating the features recited in independent claim 33. Therefore, please see the explanation provided herein regarding claims 33 and 40.

20. **Regarding claim 40**, Vaughn further discloses that the information of the [robot apparatus/target device] includes a list of functions of the [robot apparatus/target device] (see [0026], the profile includes information indicating components included in target device 210 (e.g., hardware, software and operating systems included in the target system)). Vaughn does not explicitly discuss the following features of this claim, however Kasuga further discloses:

specifying needed functions for the [robot apparatus/target device] to render the services requested (col. 8, lines 34-52, the server 38 generates or prepares information to correct the robot to the user's desires);

comparing the needed functions to the list of functions to determine functions in deficit in the [robot apparatus/target device] among the needed functions (col. 8, lines 34-52, the difference between a character the user 200 desires and a current character of his robot is compared and the difference is determined); and

retrieving one or more objects of functional objects corresponding to the functions in deficit, from the object storage unit, wherein the transmitter transmits the objects, along with the selected data or programs, to the [robot apparatus/target device] (col. 8, lines 54-56, the server 38 sends the character corrective vaccine to the robot, where the vaccine includes parameter data or software programs, as stated in col. 8, lines 22-27).

It would have been obvious for one of ordinary skill in the art at the time of the invention to use these features disclosed by Kasuga with the system disclosed by Vaughn, in order to send information from a server to the [robot apparatus/target device] user via a telecommunication line.

Response to Arguments

21. Applicant's arguments with respect to the claims presented in the Amendment filed June 14, 2011 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

22. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JERRAH EDWARDS whose telephone number is (571) 270-3044. The examiner can normally be reached on Monday through Friday, 10:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 571-272-6712. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/J. E./

Examiner, Art Unit 3667

/Mary Cheung/

Primary Examiner, Art Unit 3667